



FINAL REPORT

Animal Feeding of Distillers Dried Grains Study Committee

December 2007

MEMBERS

Senator Rich Olive, Co-chairperson
Senator Thomas G. Courtney
Senator Gene Fraise
Senator David Johnson
Senator John Putney

Representative John Whitaker, Co-chairperson
Representative Dwayne Alons
Representative Dave Deyoe
Representative Tom Schueller
Representative Andrew Wenthe

Staff Contacts:

Doug Adkisson, Senior Legal Counsel
(515) 281-3884
doug.adkisson@legis.state.ia.us

Susan Crowley, Senior Legal Counsel
(515) 281-3430
susan.crowley@legis.state.ia.us

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AUTHORIZATION AND APPOINTMENT

The Animal Feeding of Distillers Dried Grains Study Committee was established by the Legislative Council and charged to “consider issues related to standards for the distillers dried grains that can be used in formulating rations for livestock.”



Animal Feeding of Distillers Dried Grains Study Committee

I. Committee Proceedings

The Committee was authorized to conduct one meeting during the 2007 Legislative Interim. The Committee met on Thursday, September 13, 2007, in Room 22 of the State Capitol.

II. September 13, 2007, Meeting

Overview. The Committee considered presentations by a panel of professors of animal science at Iowa State University, a panel of producers and brokers, and a panel of persons associated with ethanol production facilities who are responsible for marketing distillers grain. After discussions the Committee adopted recommendations.

A. Iowa State University. Dr. Daniel D. Loy, Dr. Lee Kilmer, and Dr. Mark S. Honeyman, all professors of animal science at Iowa State University, discussed the status of distilled grain research affecting the production of beef cattle, dairy cattle, and swine.

Dr. Loy provided a brief overview of ethanol production and the associated processing of distillers products for beef cattle feed. He described types of ethanol production facilities, including the so-called dry milling processes which produce different forms of distillers products based upon the presence of moisture, including dried distillers grains with solubles (DDGS). Research indicates that distillers grains are an excellent source of protein and energy for beef cattle, with optimum feeding levels of up to 40 percent of the cattle's ration.

Dr. Kilmer discussed the use of the different forms of distillers products as a cost-effective supplemental feed source for dairy cattle. He discussed the impact of DDGS upon milk yield and the fat and protein content of milk. Dr. Kilmer pointed to studies and feeding trials conducted by the University of South Dakota which indicate milk production and the composition of milk is not adversely affected by incorporating 20 percent DDGS on a dry matter basis into the diet of lactating cows.

Dr. Honeyman discussed the use of the different forms of distillers products and particularly DDGS grain as a cost-effective supplemental feed source for swine. When considering the incorporation of DDGS in swine diets, studies indicate that the upward limit is 20 percent other than for gestating sows which may tolerate rations incorporating up to 40 percent.

B. Renessen Feed Processing. Mr. Mark Hulsebus, Animal Nutritionist for Renessen LLC, described efforts by Cargill, Inc., and Monsanto Corp. to improve the efficiency of production facilities through the joint venture Renessen. Renessen's EXTRAX™ system separates corn into two streams prior to the traditional dry grind processing. The first stream includes a high-starch, fermentable-ready fraction used to more efficiently produce ethanol and distillers grain, and the second stream includes a high-oil fraction which may be further refined by extracting food-grade oil and creating a new corn replacement meal, referred to by the trade name ECORN™ that can replace up to 100 percent of the corn used in swine rations.

C. Iowa Commercial Feed Law. Mr. Terry Jensen, Bureau Chief, Commercial Feed and Fertilizer Bureau, Department of Agriculture and Land Stewardship, discussed Iowa's commercial feed law (Code chapter 198) and methods used to label distillers products. Iowa law requires that manufacturers of livestock feed provide consumers with a label listing certain contents by maximum or minimum percentage. For distillers grain the labeled content must include crude



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protein, crude fat, crude fiber, calcium, phosphorus, and moisture. The exact percentage levels are not mandated by state law. He discussed an administrative rule adopted by the South Dakota Department of Agriculture requiring that the label for distillers grain state the maximum sulfur in the product in terms of percentage.

D. Livestock Producer and Broker Panel. Cattle producers Mr. Richard Cochran (Williamsburg) and Mr. John Hall (Ankeny) and Mr. Mark Friedow of egg producer Sparboe Farms in Jefferson discussed their experiences with distillers grains and solubles.

Mr. Cochran discussed problems associated with using different forms of distillers products, including the transportation and storage. Mr. Cochran stated that there is little uniformity in distillers products, but emphasized their benefits and expressed hope that the use of distillers products will encourage increased cattle production in Iowa.

Mr. Hall emphasized the importance of employing a nutritionalist and using an independent laboratory to analyze samples of distillers products in order to adjust rations.

Mr. Friedow stated that Sparboe Farms has used DDGS for the previous four years with positive results. He described testing procedures, stating that Sparboe Farms tests each shipment to ensure compliance with its specifications and routinely adjusts payments or returns shipments to production facilities when deliveries fail to meet those specifications. After some experimentation, Sparboe Farms uses a ration that includes 10 percent DDGS which has proven to be a cost-effective feed comparable to soybean meal.

Mr. Cochran, Mr. Hall, and Mr. Friedow encouraged the Committee to consider recommending greater funding for university research, including research regarding how distillers products may be used in beef, dairy, swine, and poultry production.

E. Distillers Grain Marketers. Mr. Ryan Sauer, Domestic Marketing Manager, Hawkeye Gold, and Mr. Michael Lash, Sales Representative for VeraSun Energy Corporation, discussed their experiences in marketing distillers grains to producers.

Mr. Sauer noted that according to current projections Iowa will annually produce approximately 4.5 million metric tons of DDGS out of an annual total United States production of 32 million metric tons. A number of challenges face the industry, including a lack of standardized testing, the absence of quality standards, inconsistency, distribution, and perceptions.

Mr. Lash described the benefits of using DDGS, including its stability, versatility, economical use, and availability. VeraSun's testing procedures are conducted by an independent laboratory. He also described marketing arrangements offered to producers, including by contract. Standards affecting the industry include lack of standardized testing and the presence of sulfur; the presence of sulfur remains a limiting factor for feeding distillers products.

Both Mr. Sauer and Mr. Lash stated that the industry would benefit from mandating standardized testing at both the state and federal levels.



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III. Committee Discussion and Recommendations

Members expressed opinions about the need for uniform testing procedures and adequate funding for research relating to improving the nutritional value of distillers products. The Committee adopted two recommendations:

- **Standardized Testing Procedures.** That the General Assembly enact legislation adopting standardized analytical testing procedures for distillers products based on findings by the American Feed Industry Association.
- **Research.** That the appropriate joint subcommittees of the standing appropriations committees for the Senate and House of Representatives consider increasing funding for university research to improve how distillers products are used in beef, dairy, swine, and poultry production.

IV. Materials Filed With the Legislative Services Agency

The items listed below were distributed at or in connection with meetings and are filed with the Legislative Services Agency. The materials may be accessed from the <Additional Information> link on the Committee's Internet Webpage:

<http://www.legis.state.ia.us/asp/Committees/Committee.aspx?id=220>

1. Revised Agenda.
2. Proposed Rules.
3. Adopted Rules.
4. Background Information memorandum submitted by Mr. Doug Adkisson, Legislative Services Agency.
5. South Dakota Administrative Rule, submitted by Mr. Adkisson, Legislative Services Agency.
6. Presentation by Dr. Daniel Loy, Iowa State University.
7. Feeding Ethanol By-products to Beef Cattle, Dr. Loy, Iowa State University.
8. Distillers Dried Grains in Dairy Rations, Dr. Lee Kilmer, Iowa State University.
9. Feeding Distillers Dried Grains with Solubles (DDGS) to Swine, Dr. Mark Honeyman, Iowa State University.
10. Feeding Bioenergy Coproducts to Swine, Dr. Honeyman, Iowa State University.
11. Comments of Renessen LLC to the Iowa Animal Feeding of Distillers Grains Study Committee, Dr. Hulsebus Presentation.
12. Presentation by Mr. Jensen, Department of Agriculture and Land Stewardship.
13. Sample Label Distillers Wet Grains, Mr. Jensen, Department of Agriculture and Land Stewardship.
14. Production and Brokerage, Presentation by Mr. Richard Cochran, cattle producer.
15. Production and Brokerage, Presentation by Mr. John Hall, cattle producer.



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16. Dry Grinding Operations, Marketing DDGS, Presentation by Mr. Ryan Sauer, Hawkeye Gold, LLC.
17. Dry Grinding Operations — Iowa State Legislature Distillers Committee, Presentation by Mr. Lash, VeraSun Corp.
18. Additional Information — “Good as Gold”, Successful Farming Article (September 2007), distributed by Senator Fraise.
19. Additional Information — Comments Submitted on Behalf of Iowa Renewable Fuels Association, Ms. Lucy Norton, Iowa Renewable Fuels Association.

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